

RIVERS AND FLOODS, JUNE, 1919.

By ALFRED J. HENRY, Meteorologist in Charge.

The month as a rule was devoid of severe floods, although heavy rains fell locally in various parts of the country, especially in the last decade. At this time moderate floods occurred in the rivers of the Carolinas. Also in the rivers of Texas, the flood on the lower Trinity from June 28 to July 7, was in the nature of a severe flood.

In the great interior drainage light local floods occurred on various rivers and on sundry dates. In general, however, the streams were at a moderately low state for June, and did not quickly respond to heavy rains.

In the region west of the Rockies the dryness was quite noticeable and apparently resulted in a reduced flow both in the Colorado and Columbia Rivers.

The usual details follow:

Estimated loss due to floods, June, 1919.

District.	Tangible property.	Crops.		Live stock.	Suspension of business.	Value of warnings.
		Present.	Prospective.			
Columbia, S. C.				\$100	\$950	\$76,000
Houston, Tex.		\$500	\$750,000	10,000		20,000
Mobile, Ala.			25,000			

TABLE I.—Flood stages in the Atlantic drainage during the month of June, 1919.

River and station.	Flood stage.	Above flood stages—dates.		Crest.	
		From—	To—	Stage.	Date.
<i>Staunton:</i>	<i>Fect.</i>			<i>Fect.</i>	
Randolph, Va.	21	27	28	21.2	28
<i>Roanoke:</i>					
Weldon, N. C.	30	28	(*)	31.5	29
<i>Neuse:</i>					
Neuse, N. C.	14	8	9	14.8	9
Smithfield, N. C.	14	10	10	14.1	10
<i>Santee:</i>					
Ferguson, S. C.	12	28	(*)	12.9	30
<i>Wateree:</i>					
Camden, S. C.	24	28	28	25.6	28

* Continued into July.

TABLE II.—Flood stages in the Mississippi drainage during the month of June, 1919.

River and station.	Flood stage.	Above flood stages—dates.		Crest.	
		From—	To—	Stage.	Date.
<i>Kanawha:</i>	<i>Fect.</i>			<i>Fect.</i>	
Glenville, W. Va.	22	26	26	23.0	26
<i>Mississippi:</i>					
Hannibal, Mo.	13	7	10	13.2	9
Arkansas City, Ark.	42	(**)	12	44.1	† 29-30
<i>Minnesota:</i>					
Mankota, Minn.	18	21	22	18.9	21
<i>Des Moines:</i>					
Ottumwa, Iowa	10	{ 4	9	13.1	8
		12	12	10.2	12
<i>Illinois:</i>					
Henry, Ill.	7	(**)	10	13.3	† 10-11
Havana, Ill.	14	5	8	14.1	6-7
Beardstown, Ill.	12	{ (**)	20	15.6	8
		20	(*)	12.2	30
Pearl, Ill.	12	4	14	13.8	9
<i>Grand:</i>					
Chillicothe, Mo.	18	4	13	20.8	5
Brunswick, Mo.	10	7	15	15.5	8
<i>Meramec:</i>					
Pacific, Mo.	11	5	6	14.5	6
<i>Bourbeuse:</i>					
Union, Mo.	10	5	5	11.1	5
<i>Blue:</i>					
Blue Rapids, Kans.	20	11	11	20.2	11
<i>Smoky Hill:</i>					
Lindsborg, Kans.	19	11	11	19.3	11
<i>Solomon:</i>					
Beloit, Kans.	18	10	13	23.7	11
<i>Black:</i>					
Black Rock, Ark.	14	{ 4	15	16.5	8
		24	27	17.4	24
<i>Catch:</i>					
Jelks, Ark.	9	22	25	9.1	24

** Continued from May.

* Continued into July.

† May.

TABLE IV.—Flood stages in the West Gulf drainage during the month of June, 1919.

River and station.	Flood stage.	Above flood stages—dates.		Crest.	
		From—	To—	Stage.	Date.
<i>Trinity:</i>	<i>Fect.</i>			<i>Fect.</i>	
Liberty, Tex.	25	28	(*)	26.1	30
<i>Colorado:</i>					
Columbus, Tex.	28	{ 16	18	33.6	17
		27	28	30.4	27
<i>Guadalupe:</i>					
Gonzales, Tex.	22	{ 18	19	24.3	18
		28	29	26.3	28
		13	14	16.9	13
Victoria, Tex.	16	{ 17	23	22.6	21-22
		28	(*)	21.9	30
<i>Rio Grande:</i>					
San Marcial, N. Mex.	14	3	3	14.0	3

* Continued into July.

TABLE V.—Flood stages in the Pacific drainage during the month of June, 1919.

River and station.	Flood stage.	Above flood stages—dates.		Crest.	
		From—	To—	Stage.	Date.
<i>Columbia:</i>	<i>Fect.</i>			<i>Fect.</i>	
Marcus, Wash.	24	(**)	(*)	27.5	1-2
Vancouver, Wash.	15	(**)	13	19.3	1-2
<i>Kootenai:</i>					
Bonners Ferry, Idaho	26	(**)	2	28.7	† 30
<i>Willamette:</i>					
Portland, Oreg.	15	(**)	13	18.6	1-2

** Continued from May.

* Continued into July.

† May.

MEAN LAKE LEVELS DURING JUNE, 1919.

By UNITED STATES LAKE SURVEY.

[Dated: Detroit, Mich., July 7, 1919.]

The following data are reported in the "Notice to Mariners" of the above date:

Data.	Lakes.*			
	Superior.	Michigan and Huron.	Erie.	Ontario.
Mean level during June, 1919:	<i>Fect.</i>	<i>Fect.</i>	<i>Fect.</i>	<i>Fect.</i>
Above mean sea level at New York.	602.45	581.50	573.77	247.95
Above or below—				
Mean stage of May, 1919.	+0.20	+0.12	+0.08	+0.68
Mean stage of June, 1918.	+0.34	-0.45	+1.23	+0.94
Average stage for June, last 10 years.	+0.24	+0.68	+0.92	+1.06
Highest recorded June stage.	-0.98	-2.10	-0.75	-0.68
Lowest recorded June stage.	+1.21	+1.60	+2.20	+3.66
Average relation of the June level to:				
May level.		+0.3	+0.2	+0.2
July level.		-0.1	+0.1	+0.1

* Lake St. Clair's level: In June, 576.45 feet.